

LEGEND

- ① W 150 X 37 WITH 19 mm X 65 mm VERT. SLOTS IN FLG. (SLOT ON OTHER SIDE OF WEB IS OPTIONAL.) FOR NO. 7, CUT BOTTOM OF POST TO MATCH CROSS SLOPE OF ROADWAY. PLACE POSTS VERTICAL AND NORMAL TO GRADE LINE.
- ② C 200 X 17 WITH 21mm DIA. HOLES FOR NO. 8. ATTACH CONTINUOUSLY TO A MIN. OF 4 POSTS & A MAX. OF 8 POSTS.
- ③ BASE PLATE 25 mm X 240 mm X 255 mm WITH 27 mm X 40 mm SLOTTED HOLES FOR ANCHOR BOLTS NO. 4. WELD TO NO. 1 AS SHOWN.
- ④ A325M - M22 HEX BOLTS (GALVANIZED) WITH A325M NUT AND WASHER, 350 mm LONG AT END POSTS AND AT POSTS ON CONCRETE SLAB SUPERSTRUCTURES WHERE THE SLAB THICKNESS IS > 375 mm. USE 200 mm LONG AT ALL OTHER LOCATIONS. 4 REQ'D. PER POST. THREAD 75 mm AND PLACE NORMAL TO PLATE NO. 3. CHAMFER TOP OF BOLTS BEFORE THREADING.
- ⑤ 6 mm X 200 mm X 200 mm FLAT BAR, WITH 24 mm DIA. HOLES FOR ANCHOR BOLTS NO. 4.
- ⑥ 44 mm X 75 mm MOUNTING BOLT WASHER (GALVANIZED.)
- ⑦ 16 mm DIA. BUTTON HEAD POST MOUNTING BOLT WITH ROUND WASHER AND NUT.
- ⑧ 16 mm DIA. X 50 mm HEX BOLTS WITH NUT AND TWO WASHERS EACH.
- ⑨ PLATE 14 mm X 145 mm X 150 mm AT BASIC POST CONNECTION. 32 mm DIA. HOLES IN PLATE. 21mm DIA. HOLES IN CHANNEL.
- ⑩ PLATE 14 mm X 145 mm X 300 mm, 32 mm DIA. HOLES IN PLATE, 21mm DIA. HOLES IN CHANNEL. (AT TYPICAL SPLICE.)
- ⑪ CORRUGATED SHEET BEAM, CONFORMING TO A.A.S.H.T.O. DESIGNATION M 180-CLASS A, TYPE 2. 'THRIE' GUARD RAIL OR EQUAL MAY BE USED IN LIEU OF THE DOUBLE UNIT PLATE BEAM SHOWN. ATTACH TO NO. 1 WITH BOLTS NO. 7.
- ⑫ PLATE 14 mm X 145 mm X 370 mm, 32 mm DIA. HOLES IN PLATE. 20 mm DIA. HOLES IN CHANNEL. EXPANSION SLOTS ON JOINT SIDE OF POST, 27 mm X 60 mm IN PLATE, 21mm X 60 mm IN CHANNEL. (AT EXPANSION SPLICE.)

GENERAL NOTES

BID ITEM SHALL BE "STEEL RAILING TYPE "W" WHICH SHALL INCLUDE ALL ITEMS SHOWN.

POST BASE PLATES, NO. 3, SHALL BE FLAT WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUT.

ALL MATERIAL, EXCEPT (NO. 5) SHALL BE GALVANIZED AFTER FABRICATION.

FILL BOLT SLOT OPENINGS IN POST SHIMS AND PLATE NO. 3 WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.

ALL MATERIALS USED IN FABRICATION SHALL BE MADE FROM MATERIALS CONFORMING TO A.S.T.M. DESIGNATION A709M GRADE 250 UNLESS NOTED OTHERWISE.

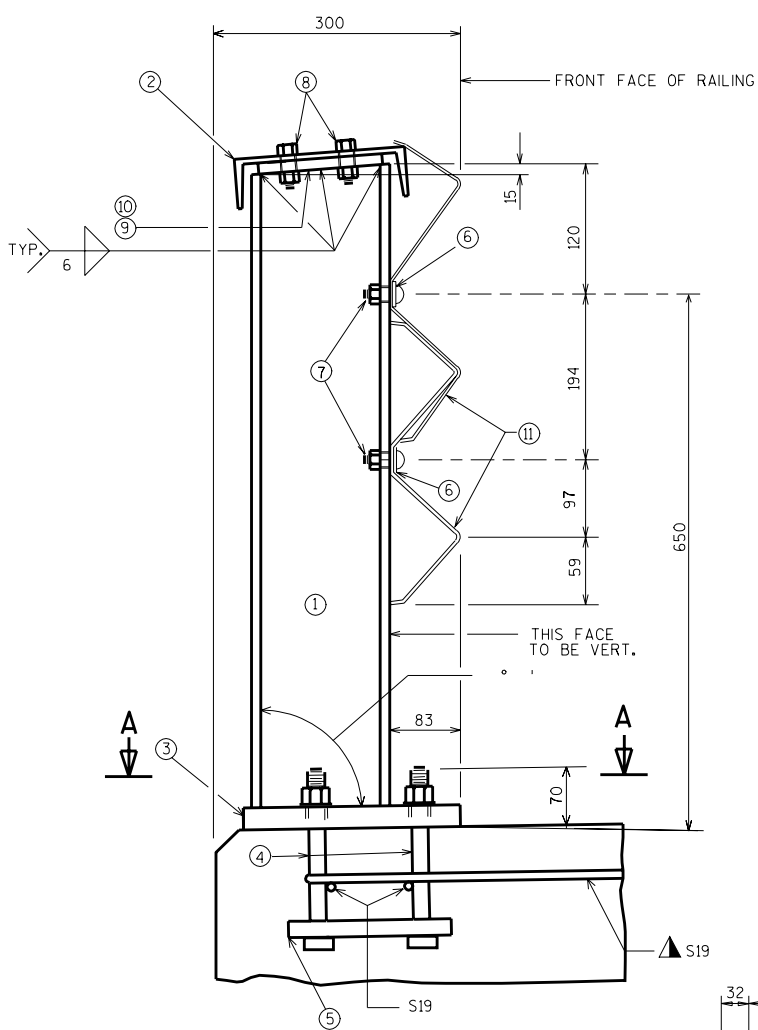
SHIM PLATES 150 mm 2 mm x 150 mm MAY BE USED BETWEEN TOP OF POST AND CHANNEL MEMBER TO ACHIEVE VERTICAL ALIGNMENT.

STEEL POST SHIMS MAY BE USED UNDER POSTS WHERE REQUIRED FOR ALIGNMENT.

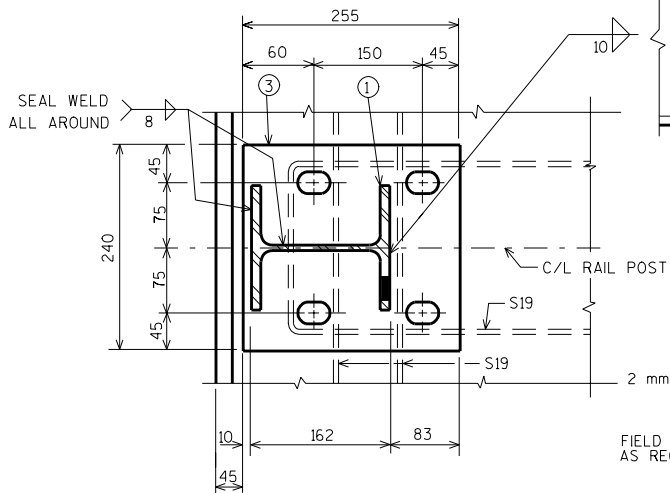
PRIOR TO GALVANIZING, ALL STEEL RAILING POSTS & CHANNELS SHALL BE GIVEN A NO. 6 COMMERCIAL BLAST CLEANING BY S.S.P.C. SPECIFICATIONS.

RAIL MEMBERS SHALL BE LAPPED IN THE DIRECTION OF TRAFFIC AND THE UPPER RAIL SHALL LAP THE LOWER RAIL.

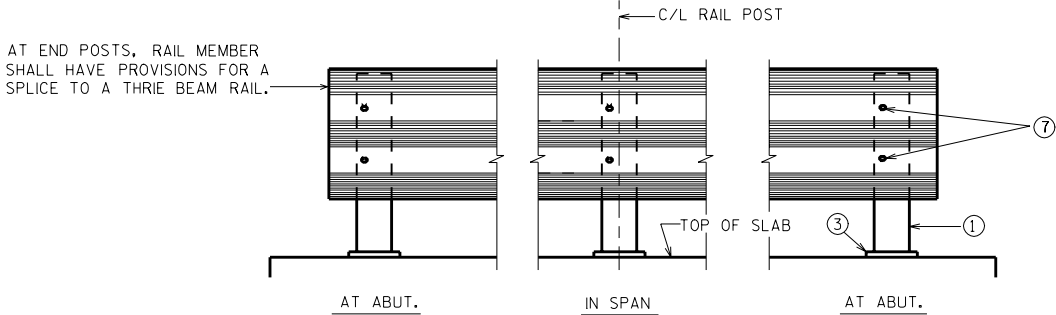
▲ TIE TO TOP MAT OF STEEL



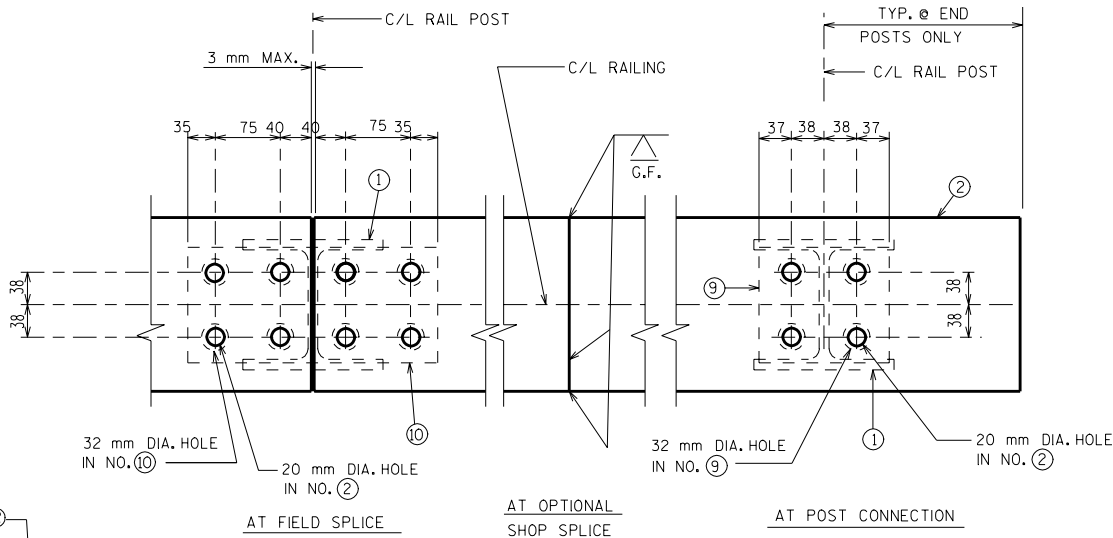
SECTION THRU RAILING



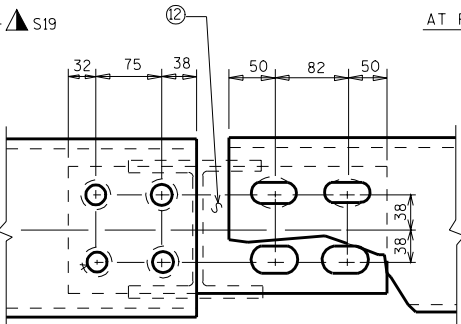
SECTION A



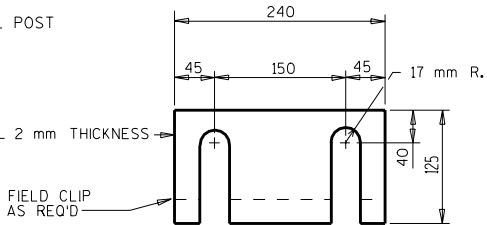
ELEVATION



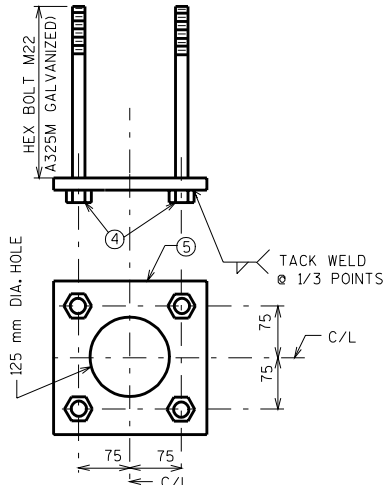
CHANNEL MEMBER DETAILS



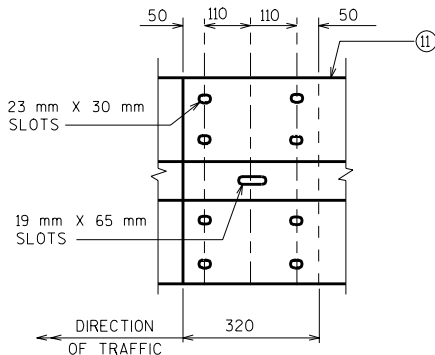
EXPANSION SPLICE



POST SHIM DETAIL
(4 PER POST)



ANCHORAGE DETAIL



RAIL MEMBER SPLICE

16 mm DIA. BUTTON HEAD OVAL SHOULDER BOLTS WITH HEX. NUTS AT ALL SLOTS.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE			
CONST. SPEC.	1996	DRAWN BY	PLANS CKD.
STEEL RAILING, TYPE "W"			SHEET